

LETTER OF PERMISSION PROCEDURE
GRAVEL MINING AND EXCAVATION ACTIVITIES WITHIN
DEL NORTE COUNTY

Interested parties are hereby notified that, in accordance with Title 33 CFR 325.2(e) published in the Federal Register, November 13, 1986, The U. S. Army Corps of Engineers San Francisco District (Corps) has adopted a Letter of Permission (LOP) procedure for the authorization of work described herein. The purpose of the LOP procedure is to expedite Section 404 of the Clean Water Act authorization for gravel mining and extraction activities in Del Norte County that do not pose significant adverse individual or cumulative impacts.

The LOP's to be issued under this procedure will contain limitations intended to protect the environment and natural and cultural resources. In cases where the District Engineer (DE) considers it necessary, applications will be required for individual permits.

In addition, the Corps regulates work in navigable waters of the United States under Section 10 of the Rivers and Harbors Act of 1899. Activities authorized under this LOP procedure may also include Section 10 authorization.

SCOPE OF WORK:

Work authorized by LOP under this procedure is limited to discharges of dredged or fill material associated with excavation activities in waters of the United States, including navigable waters of the United States, within Del Norte County, California. Activities that may be authorized by LOP under this procedure include, but are not limited to, sand and gravel mining and work associated with these activities, such as temporary stock piling of gravel in the stream and construction of temporary coffer dams and road crossings. Impacts to waters of the United States, including wetlands, shall be avoided or minimized through the use of practicable alternatives. Reasonable compensation for unavoidable adverse impacts to waters of the United States will be required. Work that would have unmitigatable adverse impacts on the aquatic environment or cause a substantial reduction in the extent of waters of the United States will not be authorized by LOP. The activities authorized under this LOP procedure shall be part of a single and complete project.

EVALUATION PROCEDURES:

Applicants shall submit complete applications to the Corps for review prior to receiving Department of the Army authorization under the LOP procedure. Each application shall be reviewed to determine consistency with the LOP procedure, and reviewed under an abbreviated environmental assessment. Applications which pass these reviews will be permitted for three years. However, each permittee must also submit yearly monitoring data regarding extraction amounts, cross-sectional information, biological monitoring and aerial photos.

Each year, in March, the Corps will conduct a public interest evaluation and coordination meeting with the Environmental Protection Agency (EPA), National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife

Service (USFWS), California Coastal Commission (CCC), California Department of Fish and Game (CDFG), and the California Regional Water Quality Control Board (RWQCB) to review new applications and yearly compliance data of previously authorized activities. If a proposed (new) activity will meet the conditions of the LOP procedures, it will be authorized by LOP. If an authorized activity has met the conditions of the LOP, and there is assurance that its planned operation for the next season will meet the LOP conditions, based on the information submitted, it will be allowed to continue for the next season under the existing authorization, until the applicant's LOP expires.

Should an agency or member of the public object to continuing an activity under an existing authorization, based on evidence of non-compliance or evidence of more than minimal impacts, the Corps will suspend and revoke the existing authorization and require an individual permit unless the permittee can demonstrate compliance with the LOP, or reduce the future impacts of its operations to minimal impacts, and mitigate for past non-compliance.

The general time line for the LOP process is stated below. Biological monitoring dates are listed in Appendix D.

FEB 1	New Class A and all class B projects must submit notification to the Corps with environmental documentation that is submitted to the Lead Agency.
FEB 1	Annual report that evaluates the past extractions, provides recommendations on future extractions, lists the cumulative amount of impacted riparian vegetation from extraction activities, includes the biological monitoring, and the provides the status of mitigation areas due to Corps and the other regulatory agencies.
MAR	Gravel Week: Corps meets with other Regulatory Agencies to review permits.
LATE MAY	Aerial photos flown. Gravel extraction plans reviewed by County and Hydrologist must be submitted, with recommendations, to the Corps, unless late seasonal rains prevent data gathering. Corps then will establish new deadline. Class B projects due to Corps by May 15.
OCT 1	Gravel stockpiled on non Wild and Scenic river bars must be removed by Oct 1.
OCT 15	Regrading must be complete for all gravel bars, even those receiving an extension. All gravel extraction ceases on river bars, unless an extension is given.
NOV 1 - FEB 28	Planting of mitigation areas.
NOV 1	Post cross-section data submitted to Corps and Hydrologist.
DEC 31	Mitigation monitoring reports due to Corps.
JAN 1	Biological monitoring data submitted to Corps.

GRAVEL EXTRACTION RESTRICTIONS:

Projects authorized under the LOP procedure are subject to the following limitations. The Corps has the right to add or modify conditions as appropriate.

1. Excavation: Excavation for gravel mining purposes may occur adjacent to the active channel of the Smith River, but remain outside the wetted channel for all other waters. These operations must establish a berm that separates the extraction area from the active portion of the river. Extraction must commence in an upstream direction with cells separating current extraction areas from completed extraction areas. A completed extraction area must be allowed to settle for a minimum of 48 hours and must be settled completely prior to being reconnected with the active channel. Once instream gravel extraction is completed, and suspended sediment allowed to settle completely, the berm must be completely and entirely removed from the channel. In-stream gravel operations must leave a layer of gravel on the bottom of the extraction area.

For sites above the active channel, excavation shall proceed by skimming except for projects where the stream or river becomes dry during the summer months where excavation may proceed either by skimming or trenching. Operations that must remain outside the active channel must be a minimum of 1 vertical foot above the water surface elevation and a minimum of 6 feet horizontally from the water's edge. To aid compliance with these setbacks the area of extraction shall be clearly flagged, painted, or staked. If trenching is to occur excavation must occur at the thalweg, and only after the watercourse becomes dry.

All equipment must remain out of standing and flowing water except for building temporary bridge crossings; equipment, however, can reach into water to extract gravel.

All projects diverting stream flow to a side channel must notify the National Marine Fisheries Service, the California Department of Fish and Game, and the United States Fish and Wildlife Service prior to being approved by the Corps.

Temporary storage of excavated material may occur on the gravel bar, but must be removed by October 1. Temporary stockpiling of gravel on bars that are on rivers listed under the Wild and Scenic Rivers Act may occur during the active work week, Monday through Saturday, but must be removed on or before Saturday of each weekend. Work on gravel bars shall be limited to Monday through Saturday, 7:00 a.m. to 6:00 p.m. Modifications to excavation procedures may be made to increase fisheries and wildlife habitat with Corps approval. Haul roads shall follow the shortest route possible while avoiding sensitive areas such as riparian vegetation, and shall be scarified after extraction is complete to prevent compaction of the gravel bar.

All riparian woody vegetation and wetlands must be avoided to the maximum extent possible. Any riparian vegetation or wetland that is disturbed must be clearly identified by mapping. Woody vegetation that is part of a contiguous 1/8 acre complex, or is at least 2 inches diameter breast height (DBH) that is disturbed must be mitigated for adverse impacts. Impacts to other woody vegetation must be described and submitted to the Corps and CDFG with gravel extraction plans. These impacts may require mitigation at the discretion of the Corps. Impacted areas which must be mapped consist of riparian vegetation which have driplines within 25 feet of excavation activities (excavation, stockpiling, parking, etc.) or wetlands which are filled, excavated or drained. Impacts to woody vegetation shall not include existing haul roads, stockpiles, etc. (See discussion under Required Mitigation).

Gravel removal must remain a minimum distance of 500 feet from any structure (i.e. bridge, water intake, dam, etc.) in the river. For bridges, the minimum setback distance is the length of the bridge or 500 feet, whichever is greater. Gravel removal may encroach within this setback with owner approval and approval by the Corps.

2. Regrading: The project area must be regraded before the water levels rise in the rainy season and must be completed by October 15. Regrading includes filling in depressions, grading the construction/excavation site according to prescribed grade (a minimum of 2%), sloping downward to the upper buffer's edge and/or downstream, and removing all temporary fills from the project area.
3. Timing: Unless the letter of permission is specifically modified, gravel extraction shall not commence until June 1, and shall cease by October 15 of each year. Regrading procedures shall be completed prior to October 15 of each year. Requests for extensions of these time periods will be reviewed on a case by case basis. The applicant, however, must have regraded the site before an extension can be authorized. Requests for extensions must include an approved CDFG Stream Alteration Agreement (SAA) extension or exemption.
4. Stream crossings for gravel mining purposes: The size and number of stream crossings must be kept to a minimum. All stream crossings must be spanned to the maximum length possible using either a flatcar or bridge span, and must maintain a three foot elevation above the water surface. Culverted crossings may be utilized in certain circumstances where the size and nature of the crossing dictates that culverts are more appropriate. Information describing the need for culverts must be submitted with culvert requests and shall be supplied to the hydrologist, CDFG, and the Corps. All crossings and associated fills must be identified as to the type (culvert vs. flatcar) and location in the submitted yearly information, and removed after excavation ceases, but before October 15 of each year unless specifically modified in any extension authorized by the Corps.
5. Wild and Scenic Rivers: Sections of the Smith River and its tributaries and the Klamath River in Del Norte County are designated recreational, scenic and wild. No Department of the Army authorization shall be given for sections of rivers designated "wild" under the Wild and Scenic Rivers Act. For a list of these recreational and scenic river sections see Appendix B. For new projects in these river sections, the applicant must provide information demonstrating that the activity will not degrade the fisheries, historical, scenic and/or recreational values for which the river was included in the system. For example, new mining operations where new processing plants are constructed along portions of a scenic river would generally not be considered appropriate under this letter of permission.
6. Endangered Species: All new applicants shall submit, as part of the application, a written assessment by a qualified biologist describing the potential effects of the project on federally threatened, endangered, or proposed species under the Endangered Species Act. This assessment shall include, at a minimum, an account of habitat suitability for listed and proposed species within a 0.25 mile radius of the project site, information on any known bald eagle or American peregrine falcon nest sites within a 0.50 mile radius of the project site, and additional pertinent site information. All suitable marbled murrelet and northern spotted owl habitat within 0.25 miles of the project site shall be mapped. For projects that are closer than 0.25 miles (setback limit) from marbled murrelet and northern spotted owl nesting and roosting habitat or tidewater goby habitat, or closer than 0.50 mile (setback limit) of the bald eagle or American peregrine nest sites see Appendix E to plan projects which have no effect or to not likely to adversely affect listed or proposed species.
7. New projects: Any project which has not been previously authorized under the County by vested rights, conditional use permit or exemption by written notice, as of April 1, 1996. New projects must submit a preliminary project description including excavation and processing locations on a USGS topo map, estimated quantity of material proposed to be excavated, and the Endangered Species assessment to the Corps by February 1 of the year in which gravel extraction is to occur. Projects removing 5000 cubic yards or more of material must also submit aerial photos.
8. Additional special conditions may be added to the LOP on a case by case basis to minimize adverse

impacts.

LOCATION OF WORK:

An LOP issued under the provisions of this procedure shall apply to work in waters of the United States, including navigable waters of the United States, within Del Norte County, California and also any projects that straddle the county lines.

AUTHORIZATION FROM OTHER AGENCIES:

The permittee is responsible for obtaining any and all additional federal, state, tribal, or local permits that may be required, which include, but are not limited to:

1. **STATE WATER QUALITY CERTIFICATION:** California's Regional Water Quality Control Board's (RWQCB) certification is required for work within the state of California, except for work within the boundaries of a Federally recognized Indian Reservation (See #5 below). Applications for certification must be submitted to the Executive Director, California Regional Water Quality Control Board, North Coast Region, 5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403.

The state of California has adopted general National Pollution Discharge Elimination System (NPDES) permits to cover those mining activities which must obtain permits to discharge stormwater associated with industrial activity - as defined in 40 CFR Section 122.26(b)(14). Applicants can contact the RWQCB, North Coast Region, for information about NPDES requirements.

2. When stream bed materials such as sand and gravel are to be disturbed or removed from waters in the state of California, the permittee must obtain a Stream Alteration Agreement from the CDFG, except when working within the boundaries of a Federally recognized Indian Reservation (See #5 below). The permittee can contact the CDFG at California Department of Fish and Game, Region 1, 601 Locust Street, Redding, California 96001.

3. All gravel and mining operations must either be permitted by or exempted by the California Department of Conservation Division of Mines and Geology's Lead Agency, except for work within the boundaries of a Federally recognized Indian Reservation (See #5 below). The Lead Agency for Del Norte County is: Del Norte County Community Development Department, 700 Fifth Street, Crescent City, California 95531. Failure to provide proof of a conditional use permit, vested rights or exemption letter will preclude use of the LOP procedure.

4. Sand and gravel extraction and other development activities located within or affecting the Coastal Zone may require a Coastal Development Permit and a Coastal Zone Management Act Consistency Concurrence from the California Coastal Commission located at 45 Fremont Street, Suite 2000, San Francisco, California 94105-2219.

5. Activities within the boundaries of a Federally recognized Indian Reservation need to obtain Water Quality Certification from the EPA, or from the Indian Reservation if it has been authorized by the EPA to grant water quality certification. In addition, there may be other permits required by the Indian Reservation that are not listed here. The applicant shall contact the appropriate Indian Reservation for more information.

6. Activities that occur below the ordinary high water mark on tidal waterways and below the ordinary high water mark on non-tidal waterways may have to obtain easements from, or pay fees to, the California State

Lands Commission (SLC). The SLC can be contacted at 100 Howe Avenue, Suite 100 South, Sacramento, California 95825-8202, or reached at (916) 574-1800.

CONDITIONS OF THE LETTER OF PERMISSION:

In addition to limitations discussed in the scope of work, projects authorized by LOP are subject to the general conditions contained in Appendix A and any special conditions added under authorization.

APPLICATION PROCEDURES:

Applications shall be typed into two different categories based on quantity of material removed from the river basins. The two categories are: Class A projects: Projects which remove 5,000 cubic yards of material per year or more; and Class B projects: Projects which remove less than 5,000 cubic yards per year of material. All new projects (See #7 under General Restrictions on Page 3) must submit a notice of intent to mine gravel to the Corps, Eureka Field Office, by February 1 of that year.

In all cases an application for authorization of work under this LOP procedure must include a complete written description of the project, proposed work schedule, the address and telephone number of a point of contact who can be reached during working hours, an 8.5 by 11 inch vicinity map, and an 8.5 by 11 inch site or location map showing all the boundaries of all work to be done (maps and figures can also be on 11 by 17 inch paper). The information may be submitted on an Application for Department of the Army Permit form (ENG Form 4345) or in any other form which will clearly supply the information in a concise manner. In general, projects that remove more than 100,000 cubic yards per year will not be considered eligible for authorization under this permit.

1 Class A Projects: Projects that remove 5,000 cubic yards or more per year of material from the river basin. Project submittal must include a description of the project and at least the following information, on a yearly basis:

I. A pre-extraction report shall be submitted to the Corps after it is approved by the County and after review by the hydrologist selected by the gravel miners and approved by the County and the Corps of Engineers. The pre-extraction report shall be submitted a minimum of two weeks prior to excavation. Pre-extraction reports shall include:

A. Cross-section Surveys: Monitoring and Extraction cross-section surveys shall be done according to Appendix C (attached), unless modified by the Corps in review with the County hydrologist. Each year spring surveys shall be submitted by May 15 to the Corps, unless river levels and weather prevent data collection, at which point a deadline will be determined by the Corps. Applicants shall submit gravel extraction plans, approved by the county and the hydrologist, to the Corps for approval, prior to commencing gravel extraction operations;

B. A Stream Alteration Agreement (SAA) or any extension signed by the CDFG, or a Riparian Protection and Surface Mining Permit signed by a Federally recognized Indian Reservation. Permits may be obtained concurrently with the Corps permit;

C. A pre-extraction stereoscopic, aerial photo of the location, with a scale of 1 inch equals 1000 feet. Photos shall be taken in the late spring of each year and shall include the entire project reach (extraction zone plus immediate upstream and downstream reaches within one half length of the extraction zone reach, as measured along the thalweg (the bottom of the low-flow channel)). Photos

shall only be taken after the river recedes and the water is clear enough to see the bottom;

D. A mitigation report containing the mapped areas that are impacted (riparian vegetation and wetlands) and the mitigation proposed to minimize these impacts;

E. For new projects, the applicant must submit to the Corps and the consulting regulatory agencies participating in the March Meetings, by February 1 of the initial gravel mining year, copies of the environmental documentation required by the Lead Agency when requesting a conditional use permit, vested right or exemption. The Corps may also require additional information.

II. A post-extraction report shall be submitted to the Corps and the County Hydrologist by November 1 of each year. Post-extraction reports shall include:

A. A post-extraction survey, which shall be conducted following cessation of extraction and before alteration of the extraction area by flow following fall rains, preferably before October 15. Post-extraction reports shall include the amount and dimensions of material excavated from each area mined. See Appendix C for post-extraction requirements;

B. A longitudinal profile view of the thalweg for the active channel line along the project reach based on the monitoring cross-sections;

III. Biological monitoring report as described in Appendix D due January 1.

IV. Final Report from the hydrologist due February 1. The hydrologist shall submit to the Corps his/her evaluation of the extraction sites, monitoring cross-sections, impacts associated from previous extraction operations and any definable changes in the river morphology that may alter extraction prescriptions.

I Class B Projects: Projects that remove less than 5,000 cubic yards per year of material from the river basin. Class B projects must be physically separated from other gravel operations to be considered separate projects. Projects cannot be located on the same gravel bar, or on the same parcel number as other projects, and be considered as separate projects. The Corps reserves the right to elevate a Class B project to Class A status.

Project submittal must also include a description of the project and at least the following information, on a yearly basis:

I. A pre-extraction report, approved by the County appointed hydrologist, and submitted by May 15 of the gravel year, unless high flows prevent data gathering, that includes:

A. Plan and cross-section view drawings of the project site on 8.5 by 11 inch or 11 by 17 inch paper. Drawings shall be labeled with dimensions, and quantities of material removed from each site. Plan views must map any salmonid spawning sites;

B. A minimum of one monitoring cross-section and five extraction cross-sections per extraction site (See Appendix C for cross-section details);

C. A copy of the SAA signed by the CDFG, or a Riparian Protection and Surface Mining Permit signed by the Federally recognized Indian Reservation. Permits may be obtained concurrently with the Corps permit;

D. Photos of the mining area before excavation. Photo location shall be mapped (location and direction) to maintain consistency with post-extraction report photos.

E. Mapping and description, including size, species and number, of any riparian vegetation that will be removed, cut, or within 25 feet of excavation, stockpiling or trafficking of gravel and any wetland that will be impacted. Also included in submittal shall be a mitigation plan to minimize any unavoidable impacts.

II. A post project report, due by November 1 of extraction year, which shall include:

A. Post-extraction data for extraction and monitoring cross-sections according to Appendix C.

B. Photos of the mining area after excavation. Photos shall be taken from the same location as pre-project photos.

REQUIRED MITIGATION:

Each permittee shall mitigate impacts to wetlands and riparian zones in the following manner: avoidance of the impact; minimization of the impact, rectifying the impact, reducing or eliminating the impact over time, and finally compensating for impacts. For all unavoidable impacts a mitigation plan shall be submitted with applications for all projects that will adversely affect wetlands and riparian vegetation. Mitigation must consider the size and age of the vegetation removed or adversely impacted. All vegetative mitigation must be planted between November 1 and February 28 following excavation and must have an approved survival rate over three growing seasons. Failure to obtain a three year survival rate shall require replanting. Annual reports depicting the survival of vegetation shall be due by December 31 each year for three growing seasons after planting year.

SITE VISITS:

Each year project owners must also inform the Corps upon completion of gravel removal so that a site visit can be planned before the rainy season commences. Notification, by phone or fax, shall occur within two days of project completion.

APPLICATION SUBMITTAL:

Applications should be mailed to:

U.S. Army Corps of Engineers, Regulatory Branch, Eureka Field Office, Attention: Mr. Kelley Reid, P.O. Box 4863, Eureka, California 95502. If you have questions you can phone the Eureka Office at (707) 443-0855 or fax (707) 443-7728. Our e-mail address is kreid@spd.usace.army.mil.

Work may not proceed prior to written notification that the District Engineer has issued an LOP. For projects which have obtained the LOP, the activity may not begin each year until a confirmation letter has been issued by the Corps. It is the applicant's responsibility to insure that the authorized project meets the terms and conditions set forth herein; failure to abide by them will constitute a violation of the Clean Water Act and/or the Rivers and Harbors Act of 1899.

The Corps is responsible for determining compliance with this LOP. The Corps may take actions to rectify projects which are not in compliance. These actions may include, but are not limited to, the following: Permit

revocation, Permit suspension, Project and habitat site restoration orders, Reduction of authorized gravel extraction amounts per year.

No authorization will be granted under an LOP for any excavation or grading that is for the primary purpose of river engineering, channel or river capture, channel realignment or for a project that is likely to result in the above, unless explicitly stated in the submittal and unless approved by the Corps. Projects outside the scope of this LOP may be considered for authorization by individual permit.

This LOP shall become effective on the date of the signature of the District Engineer, or his authorized representative, and will automatically expire on December 31, 2007 unless the LOP is modified, revoked, or extended before that date. Activities authorized under this LOP that have commenced (i.e. are under operation), or are under contract to commence in reliance on this LOP, will remain authorized provided the activity is completed within twelve months of the expiration, modification, or revocation of the LOP, unless discretionary authority has been exercised by the Corps on a case-by-case basis to modify, suspend, or revoke the authorization.

This procedure becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

_____DRAFT_____
TIMOTHY S. O'ROURKE
Lieutenant Colonel, Corps of Engineers
District Engineer

DATE

APPENDIX A

CONDITIONS OF LETTERS OF PERMISSION ISSUED UNDER "Gravel Mining and Excavation Activities in Del Norte County"

GENERAL CONDITIONS:

1. The Department of the Army has relied in part on the information provided by the permittee. If, subsequent to issuing this permit, such information proves to be false, incomplete, or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part.
2. Permittees whose projects are authorized by this LOP shall comply with all terms and conditions herein. Failure to abide by such conditions invalidates the authorization and may result in a violation of the law, requiring restoration of the site, remedial action, or legal action.
3. An LOP should not be considered as an approval of the design features of any authorized project or an implication that such is considered adequate for the purpose intended; a Department of the Army permit merely expresses the consent of the Federal Government to the proposed work insofar as public rights are concerned. This permit does not authorize any damage to private property, invasion of private rights, or any infringement of federal, state or local laws or regulations. Nor does it relieve the permittee from the requirement to obtain a local permit from the jurisdiction within which the project is located and to address all non-encroachment restrictions within a regulatory floodway of such local jurisdiction as identified by the Federal Emergency Management Agency.
4. This LOP procedure may be modified or suspended in whole or in part if it is determined that the individual or cumulative impacts of work that would be authorized using this procedure are contrary to the public interest. The authorization for individual projects may also be summarily modified, suspended, or revoked, in whole or in part, upon a finding by the District Engineer that immediate suspension of the project would be in the public interest.
5. Any modification, suspension or revocation of the District Engineer's authorization shall not be the basis for any claim for damages against the United States.
6. This permit does not authorize the interference with any existing or proposed Federal project, and the permittee shall not be entitled to compensation for damage or injury to the structures or activities authorized herein which may result from existing or future operations undertaken by the United States in the public interest.
7. No attempt shall be made by the permittee to prevent the full and free public use of all navigable waters of the United States, at or adjacent to the project authorized herein.
8. There shall be no unreasonable interference with navigation by the existence or use of the permanent and temporary structures authorized herein.
9. The permittee shall make every reasonable effort to conduct the activities authorized herein in a manner that will minimize any adverse impact of the work on water quality, fish and wildlife, and the natural

environment, including adverse impacts to migratory waterfowl breeding areas, spawning areas, and riparian areas.

10. The permittee shall allow the District Engineer and his authorized representative(s) to make periodic inspections at any time deemed necessary to assure that the activity being performed under this authorization is in accordance with the terms and conditions prescribed herein.

11. The impact of activities authorized by LOP using this procedure on cultural resources listed, or eligible for listing, in the National Register of Historic Places (NRHP), shall be taken into account by the U.S. Army Corps of Engineers (Corps) prior to the initiation of work. If previously unknown cultural resources are encountered during work authorized by this permit, the San Francisco District shall be notified and the sites avoided until the Corps can assess their eligibility for listing in the NRHP. Sites determined to be eligible for listing in the NRHP shall require consultation between the Corps and the State Historic Preservation Office and/or the Advisory Council on Historic Places. Cultural resources include prehistoric and historic archeological sites, and areas or structures of cultural interest which occur in the permit area.

12. All temporary fills shall be removed in their entirety.

13. All extraction activities in the vicinity of federal projects shall be coordinated for required setback distances with the Corps office prior to application for a permit.

14. Heavy equipment working in wetlands shall be placed on mats, or other measures shall be taken to minimize disturbances to soil.

15. No authorization will be granted under this LOP for an activity that is likely to adversely affect or cause unauthorized take of a threatened or endangered species or jeopardize the continued existence of a species proposed for such designation, as identified under the Endangered Species Act, or for an activity that is likely to destroy or adversely modify the critical habitat of such species. See Appendix E for “not likely to adversely affect” determinations.

16. The project shall not significantly disrupt the movement of those species of aquatic life indigenous to the water body or those species that normally migrate through the project area.

APPENDIX B

WILD AND SCENIC RIVER SECTIONS IN DEL NORTE COUNTY, CA

Waterway: section		River Value
Smith River: Main Stem:	Confluence of Middle and South Forks to the mouth at the Pacific Ocean	Recreational
Rowdy Creek: River	California/Oregon border to confluence with Smith	Recreational
Mill Creek:	Junction of East Fork and West Branch to confluence with Smith River	Recreational
Mill Creek: West Branch:	Tributary confluence in northern portion of S17 T15N R1E to junction with East Fork Mill Creek	Recreational
Mill Creek: East Fork:	From source in S36 T16N R1E to confluence with West Branch Mill Creek	Recreational
Bummer Lake: Creek:	From source in S36 T16N R1E to confluence with East Fork Mill Creek	Recreational
Dominie Creek: Rowdy	From source in S7 T18N R1E to confluence with Creek.	Recreational
Savoy Creek:	From source in S5 T17N R1E to confluence with Rowdy Creek	Recreational
Little Mill Creek:	From source in S9 T17N R1E to confluence with Smith River	Recreational
Rock Creek:	From source in S36 T15N R1E to confluence with Smith River	Recreational
Remaining Creeks and Rivers on the Smith River within the Six Rivers National Forest are Wild, Scenic or Recreational. Please consult with the Six Rivers National Forest for information regarding sites within National Forestland for status and permits they may require.		
Klamath River:	From Del Norte County line to Pacific Ocean	Recreational

APPENDIX C

CROSS SECTION GUIDELINES FOR GRAVEL EXTRACTION IN DEL NORTE COUNTY

Cross-sections, maps, and associated calculations such as extraction volumes, must be prepared under the direction of a State of California Licensed Land Surveyor or a legally authorized Professional Engineer and certified as to content and accuracy.

Monitoring cross-sections are permanent, monumented cross sections whose purpose is to document yearly and long-term changes in river channel elevation and morphology at extraction sites. They also aid in extraction planning and in estimation of volumes extracted.

Extraction zone cross-sections are temporary, seasonal cross-sections used for the planning an extraction, for estimation of the actual volume extracted, and for evaluating compliance with Corps approved gravel plans. The extraction zone is the total area that will be extracted and/or graded as a result of gravel extraction activities.

I. Standards for Monitoring Cross-Sections:

A. Number and layout of required cross sections for an extraction project to follow the guidelines below:

1. A hypothetical center line for the river channel, measured equidistant from both banks and delineating the actively scoured channel (bankfull width) must first be established to determine the length of the project line.
2. If the radius of curvature is less than ten times larger than the average actively scoured channel width of the project reach, the reach is considered a bend. If the radius of curvature is more than ten times larger than the average actively scoured channel width of the project reach, the reach is considered straight.
3. Cross-sections shall be oriented perpendicular to the center line.
4. Cross-sections shall be no more than 400 feet apart on bends and 500 feet apart in straight reaches. If the length of the project reach is not evenly divisible by 400 or 500 feet, the number of cross-sections should be rounded to the next larger number.
5. The first cross-section should extend across the channel at the upstream limit of the project reach (entire project site); the last cross-section should extend across the channel at the downstream limit of the project reach.

B. Cross-sections to extend completely across the river channel (so as to include all actively scoured channel width) and to terminate either on banks in mature riparian vegetation (clearly older than 10 yr; DBH >4 in.), or on the 10-year flood terrace.

C. At least one bench mark (permanent monuments) to be established for each bar above the watercourse's active banks and in positions such that they will not be eroded away by relatively frequent (<10 yr flow) events. Bench marks to be tied to a common vertical and horizontal control datum, the 1988 North American Vertical Datum (NGVD) and to the 1983 North American Datum, among all extraction sites.

D. Cross-section endpoints and tie points to be clearly monumented and labeled in the field and accurately

located on current air photos and maps. A common color of flagging, or environmentally benign painting to be used to mark cross-sections at all sites.

E. Cross-section endpoints to be placed far enough away from eroding banks that they will not be removed by relatively frequent flows (e.g., by floods smaller than the 10-year event).

F. Cross-sections to be resurveyed from the same endpoints each year. New cross-sections to be added as necessary as the river's course shifts, and to be oriented approximately normal to the channel center line.

G. Pre-extraction cross-section surveys need only include those portions of each cross-section inundated by the previous winter's highest flow. If the highest flow of the season occurs after the cross-section survey is completed, the cross-section must be resurveyed. All monitoring cross-sections should be surveyed each spring, regardless of whether extraction took place in them in the previous year.

H. Post-extraction cross-sections need only be resurveyed through those portions of the cross-section altered by extraction, temporary stockpiles, road construction, and equipment storage areas.

I. Stake or spray paint the following points on the ground in each cross-section at time of survey (to facilitate the County, CDFG or the Corps in relating the cross-section at time of survey to the ground during field review):

1. water's edge on both sides of river; or if this is not practicable, stake at 10 ft offset (measured along ground surface) from water's edge. Position of stake to be included in survey.
2. on both sides of river, one hub (2 inch by 2 inch wooden stake), painted brightly and labeled, shall be driven in nearly flush with the ground at the survey point closest to midway between water's edge and cross-section endpoint. Exception: this is not required if it would put the stake in a steep eroding bank.
3. Stakes should be labeled with cross-section and station number (horizontal distance from left end point).

II. Standards for Extraction Zone Cross-Sections

A. Number and layout of extraction cross sections for an extraction project to follow the guidelines below:

1. A hypothetical center line for the proposed extraction, located equidistant from both edges of the extraction zone and extending down its long axis must be established.
2. A minimum of 5 equally-spaced extraction cross-sections to be surveyed in each extraction zone or area.
3. Cross-sections shall be oriented perpendicular to the extraction center line.

B. Extraction cross-sections to be surveyed in prior to extraction, and used to design extraction and to estimate extraction volume.

- C. Extraction cross-sections to be resurveyed after extraction is complete. Extraction cross-sections need not be resurveyed in subsequent years.
- D. Extraction cross-sections require temporary (seasonal) monuments at each end if possible, and at least at one end, using items such as stakes or rebar which can be relocated after extraction is complete.
- E. Extraction cross-sections should be clearly staked and marked on the ground so that the County, CDFG or the Corps can readily locate them in the field.

III. Preparation of Cross-Sections.

A. All Cross-Sections shall be prepared according to the following criteria:

1. Surveyed cross-sections shall be noted to the nearest 0.1 ft and should include:
 - a. end points and ground surface elevation at end points
 - b. all obvious breaks in slope
2. Cross-sections to be tied to a common vertical and horizontal control datum among all extraction sites. This is specified as the 1988 North American Vertical Datum (NAVD) and 1983 North American Datum (NAD) elevation for sea level.
3. Cross-sections at all sites to be plotted at the same simple, usable vertical and horizontal scales. All cross-sections must have a vertical exaggeration of 10. Recommended scales to use for cross-sections are as follows:

<u>Cross-Section Width</u>	<u>Paper Size</u>	<u>Horizontal Scale</u>
≤ 100 ft.		8 ½" x 11" 1 in. = 10 ft.
100 ft. - 500 ft.	8 ½" x 11"	1 in. = 100 ft.
500 ft. - 1200 ft.	8 ½" x 14"	1 in. = 100 ft.
≥ 1200 ft.		8 ½" x 14" or 11" x 17" 1 in. = 100 ft.

Cross-sections can be cut and stacked so that whole cross-sections can be placed on one page. Cross-sections that are cut and stacked must be consistently presented each year.

4. Cross-sections to be surveyed and drafted consistently so that the right bank (RB) of the river as you face downstream is at the right side of the drafted cross-section.
5. Zero (0) distance in cross-sections to be at the left (LB) endpoint as you face downstream.
6. Cross sections to be plotted on gridded paper, where the grid logically corresponds to the scale at which the cross-section is plotted. We suggest a grid of 10 squares to the inch. Grid to be visible in the reproduced paper copies provided to the Corps and the hydrologist.
7. Cross sections to have clearly labeled vertical and horizontal axes. Each cross section should have its own horizontal axis to facilitate measurement of distances (rather than a single set of axis labels at bottom of page). Each cross-section should have its origin on a heavy grid line.

8. Any vertical or horizontal datum or endpoint changes should be clearly noted along with the length and direction of change(s) on the cross section plots.
9. maximum distance between any two elevational points along a cross-section shall be 50 feet, including wetted portion. Exception: if ground outside wetted channel is essentially level for a distance of 500 feet, distance between points can be increased to 100 feet. All obvious breaks in slope must still be included.
10. Elevations, notations, etc. on the cross-sections should be clearly legible, not an overlapping, unreadable mess.
11. Net cross-sectional area change pre-extraction to post-extraction, or post-extraction to next year's pre-extraction, as appropriate, should be calculated for each cross-section. Measurements and calculations should be included
12. The survey data for each cross section should be provided to the Corps and the hydrologist on a 3.5" diskette as a digital file in ASCII text format (alphanumeric, tab-delimited). The data should be grouped by cross-section and organized from L bank to R bank, using the format below: An example is shown.

XS 20+78

Point No.	Horizontal Offset	elevation	description
45	50	57.94	LB rebar
46

A paper printout of the data should also be supplied.

13. Cross-sections for planning extractions should be surveyed in late May of the year in which extraction is proposed. Cross-sections following mining to be surveyed as soon as practicable after mining ends, and definitely before winter high flows occur.

B. All monitoring cross sections shall also include:

1. Where discernible, elevation and position of high-water marks for previous winter's flow (flood marks); these should be consistently determined among cross-sections;
2. Water-surface elevation and location (both banks) at time of survey;
3. Cross-sections must include the river bottom (especially location of the thalweg) as well as the water surface. Water surface elevation alone is insufficient; the bed must be included;
4. Elevation and location of top of silt band ("bathtub ring") if visible at time of survey;
5. Location of major vegetation breaks, e.g., edge of willows or riparian forest;
6. Water discharge at time of survey (from nearest USGS gage) to be shown in cross-section legend;
7. Flood marks, silt line, water's edge, monuments, and reference stakes should all be clearly labeled in the cross-section and their elevations indicated;

8. For spring cross-section data all monitoring cross-sections shall include the current year's spring cross-section overlain on the previous year's spring and fall (if any) cross-sections. The area of actual extraction should be lightly shaded or hatched. Water-surface should be shown with a dotted line, and its date clearly indicated;

9. For pre-extraction survey, total volume change since the previous year's post-extraction survey should be calculated using double end-area or computer generated digital terrain models. All measurements and calculations should be included and verified by a California Licensed Land Surveyor or appropriately authorized engineer; and

10. For post extraction cross-section data, all monitoring cross-sections which overlap the extraction area shall include the current year's post extraction data overlain on the current year's pre-extraction cross section data and the previous year's post extraction cross-section data and the original prescription recommended by the hydrologist. The post-extraction cross-section should be shown with a solid line, the pre-extraction by a dashed line. The actual area of extraction should be lightly shaded or hatched.

C. All Extraction Cross-Sections shall also include:

1. Spring extraction cross-sections shall include the spring cross-section data overlain on the Corps approved prescription cross-section. The proposed area of extraction should be lightly shaded or hatched;

2. Post extraction cross-sections shall include the fall cross-section data overlain on the previous year's post extraction (if any) and the current year's pre extraction cross-section data and the Corps authorized prescription cross-section. The actual area of extraction should be lightly shaded or hatched; and

3. The net cross-sectional area change pre-extraction to post-extraction should be calculated for each cross-section. Total volume extracted should be computed, using double end area or computer generated digital terrain models. All measurements and calculations should be included and verified by a California Licensed Land Surveyor or appropriately authorized engineer.

IV. Preparation of Maps:

A. All site maps to be prepared on an aerial photo from current year. Photos can be obliques for spring surveys. Site maps should show the river and the proposed extraction area. Site maps should have a scale of approximately 1:12000 (1 in = 1000 ft).

B. All monitoring cross-sections should be accurately located and labeled on the site map. In particular, the end points of each cross-section must be located in their true positions, not just guessed at or estimated.

C. Pre-extraction photos should be taken when the river is low enough to see the channel. Earlier photos may be used for preliminary planning, but a current final set is required and should be used for the site map.

APPENDIX D

BIOLOGICAL MONITORING REQUIREMENTS FOR GRAVEL EXTRACTION IN DEL NORTE COUNTY, CA

The purpose of the biological monitoring is to identify adverse impacts that can be avoided, minimized and mitigated by mapping important resources such as fish habitat and riparian vegetation . This monitoring plan is not a river management plan but part of the Corps regulatory requirements to ensure protection of the aquatic ecosystem.

Each project will study their project reach which shall include the gravel extraction reach (or zone) and distances upstream and downstream of the gravel extraction area equal to half the gravel extraction reach. Modifications to the project reach may be made by the Corps for projects in close proximity to other gravel operators, and for projects that span large distances with relatively small excavations. Each Class A applicant shall submit the following biological monitoring data to be obtained by a qualified biologist. Each applicant is responsible for ensuring that all data submitted is accurate and obtained by qualified individuals. Failure to employ qualified individuals may require resurveying, and or suspension of the permit.

A. Anadromous Fish:

1. Each project reach shall be mapped for fish habitat, in early summer, using the CDFG's Habitat Level III typing techniques, as provided in the CDFG California Salmonid Stream Habitat Restoration Manual, at a final scale of approximately 1 inch = 500 feet. This mapping effort should be completed in 1997 or first year of operations and use aerial photography and on the ground visual observations for ground truthing.

- a. When habitat mapping, the recorder shall make specific note of pool depths, eddies, deltas, key in-channel habitat features formed by large woody debris (e.g. fallen trees, large logs, and root wads), and unique substrate conditions that are of high importance to fish. Habitat typing of the project reach shall be redone after three years.

2. Project reaches in the lower mainstems of the rivers shall be annually surveyed using snorkeling or visual surveys over a three year period to document adult salmonid upstream migration patterns, use of holding areas such as pools, and how fish generally distribute themselves while they are transporting up the rivers. Project reaches downstream of the 199 Bridge on the Smith River, and downstream of the Humboldt/Del Norte County line on the Klamath River shall be surveyed. Surveys shall begin October 1 and continue every fifteen days through December 1 as water conditions (flow and visibility) permit. Any redds observed shall be mapped. Locations and dates shall be submitted by December 31.

3. An annual adult summer steelhead snorkeling survey shall be conducted once each year for three years. The annual survey shall be taken within the month of July and shall survey all pools within the project reach. Pools where fish are present shall be mapped.

C. Birds:

Gravel operations that begin in the spring (March, April or May) may adversely affect nesting and brooding activities of avian species. Monitoring of avian species to determine use of riparian areas and gravel bars according to sex, age, and breeding status may be required of any operation that commences gravel extraction before June 1. Any monitoring plan shall be approved by CDFG and USFWS personnel in writing.

APPENDIX E

OPERATING REQUIREMENTS FOR PROJECTS LOCATED WITHIN AND AROUND SETBACK ZONES OF ENDANGERED SPECIES NEEDED FOR A “NO AFFECT” “NOT LIKELY TO ADVERSELY AFFECT” DETERMINATION

Projects located within and around setback zones of the bald eagle, American peregrine falcon, marbled murrelet, tidewater goby and or the northern spotted owl, are not likely to adversely affect these species if:

1. Gravel extraction operations that are closer than 0.50 miles (setback zone) of any known bald eagle or American peregrine falcon nest sites shall not operate from January 1 to July 31;
2. Gravel extraction operations closer than 0.25 miles (setback zone) from suitable northern spotted owl habitat shall not operate from February 1 to July 31 unless surveys performed according to the “Protocol for Surveying Proposed Management Activities that May Impact Northern Spotted Owls” dated 7 March 1991 indicate that there are no detection of this species in the area. USFWS must approve report.
3. Gravel extraction operations closer than 0.25 miles (setback zone) from suitable marbled murrelet habitat shall not operate from April 1 to September 15 or until surveys performed according to “Methods for Surveying for Marbled Murrelets in Forests: A Protocol for Land Management and Research” dated March 1994 and amended 8 March 1995, indicate that there are no detections of this species in the area. USFWS must approve report.
4. Gravel extraction operations shall be at least 0.25 miles (setback zone) from known occurrences of tidewater gobies.